



## Complete Summary

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### **GUIDELINE TITLE**

Calcium x phosphate product.

### **BIBLIOGRAPHIC SOURCE(S)**

Hawley C. Calcium x phosphate product. Nephrology 2006 Apr;11(S1):S206-8.

Hawley C. Calcium x phosphate product. Westmead NSW (Australia): CARI - Caring for Australasians with Renal Impairment; 2005 Oct. 7 p. [27 references]

### **GUIDELINE STATUS**

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

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INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT  
CATEGORIES  
IDENTIFYING INFORMATION AND AVAILABILITY  
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## SCOPE

### **DISEASE/CONDITION(S)**

Chronic kidney disease

### **GUIDELINE CATEGORY**

Management  
Treatment

### **CLINICAL SPECIALTY**

Family Practice  
Internal Medicine  
Nephrology  
Pediatrics

## **INTENDED USERS**

Physicians

## **GUIDELINE OBJECTIVE(S)**

To explore the evidence to support an appropriate target range for the calcium x phosphate product in patients with renal impairment by looking at extraskkeletal outcomes

## **TARGET POPULATION**

Adults and children with chronic kidney disease

## **INTERVENTIONS AND PRACTICES CONSIDERED**

Maintenance of appropriate serum calcium x phosphate product (considered but not recommended)

## **MAJOR OUTCOMES CONSIDERED**

- Vascular calcification
- Cardiovascular mortality
- Mortality

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

**Databases searched:** MeSH terms and text words for kidney dialysis were combined with MeSH terms and text words for serum calcium. This search was carried out in Medline (1966 to April Week 3 2005). The Cochrane Renal Group Trials Register was also searched for calcium and phosphate trials not indexed in Medline.

**Date of searches:** 30 April 2005.

### **NUMBER OF SOURCE DOCUMENTS**

Not stated

### **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Weighting According to a Rating Scheme (Scheme Given)

## **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

### **Levels of Evidence**

**Level I:** Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

**Level II:** Evidence obtained from at least one properly designed RCT

**Level III:** Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

**Level IV:** Evidence obtained from case series, either post-test or pretest/post-test

## **METHODS USED TO ANALYZE THE EVIDENCE**

Systematic Review with Evidence Tables

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Not stated

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

## **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Not stated

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Not applicable

## **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

## **METHOD OF GUIDELINE VALIDATION**

Comparison with Guidelines from Other Groups  
Peer Review

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Recommendations of Others. Recommendations regarding calcium x phosphate product in patients with chronic kidney disease from the following groups were discussed: UK Renal Association, Canadian Society of Nephrology, European Best Practice Guidelines, and International Guidelines.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

Definitions for the levels of evidence (I–IV) can be found at the end of the "Major Recommendations" field.

#### Guidelines

#### No recommendations possible based on Level I or II evidence

#### Suggestions for Clinical Care

(Suggestions are based on Level III and IV evidence)

- In Stage 5 kidney disease, serum calcium (albumin-corrected) x phosphate product < 4.0 mmol/L is recommended. (Level III evidence – cohort data; strong effect; consistent finding)

#### Definitions:

#### Levels of Evidence

**Level I:** Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

**Level II:** Evidence obtained from at least one properly designed RCT

**Level III:** Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

**Level IV:** Evidence obtained from case series, either post-test or pretest/post-test

### CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Appropriate management of serum calcium x phosphate levels in patients with chronic kidney disease

### POTENTIAL HARMS

Not stated

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Living with Illness

### IOM DOMAIN

Effectiveness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

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### ADAPTATION

Not applicable: The guideline was not adapted from another source.

**DATE RELEASED**

2005 Oct

**GUIDELINE DEVELOPER(S)**

Caring for Australasians with Renal Impairment - Disease Specific Society

**SOURCE(S) OF FUNDING**

Industry-sponsored funding administered through Kidney Health Australia

**GUIDELINE COMMITTEE**

Not stated

**COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

*Author:* Carmel Hawley

**FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

All guideline writers are required to fill out a declaration of conflict of interest.

**GUIDELINE STATUS**

This is the current release of the guideline.

**GUIDELINE AVAILABILITY**

Electronic copies: Available in Portable Document Format (PDF) from the [Caring for Australasians with Renal Impairment Web site](#).

Print copies: Available from Caring for Australasians with Renal Impairment, Locked Bag 4001, Centre for Kidney Research, Westmead NSW, Australia 2145

**AVAILABILITY OF COMPANION DOCUMENTS**

The following is available:

- The CARI guidelines. A guide for writers. Caring for Australasians with Renal Impairment. 2006 May. 6 p.

Electronic copies: Available from the [Caring for Australasians with Renal Impairment \(CARI\) Web site](#).

**PATIENT RESOURCES**

None available

## **NGC STATUS**

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